





A Quality Improvement Initiative by the Community Antimicrobial Pharmacists Group, Republic of Ireland

Supported by the National Antimicrobial Resistance and Infection Control (AMRIC) Programme and HSE National Community Healthcare, Quality and Patient Safety

Authors

Mala Shah¹, Aisling Clancy², Mary Regan², Shirley Armitage², Callum Ryan², Patricia Sheehan², Catherine Mannion², Olivia Gallagher², Roisin Foran², Nora Dwyer², Margaret Donnelly²
1. Chief II Antimicrobial Pharmacist, Community Healthcare, National Quality and Patient Safety, HSE
2. HSE Community Antimicrobial Pharmacists Group

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Background

Reduction of harm in relation to antibiotic use and antimicrobial resistance is a key priority for the Health Service Executive (HSE). Urinary tract infection (UTI) is the most common reason for antibiotic prescriptions in older persons residential care facilities (OPRCFs). Inappropriate use of urine dipstick tests can lead to unnecessary

antibiotic prescribing, contributing to adverse effects and antimicrobial resistance.

Older persons are more likely to have asymptomatic bacteriuria. Urine dipsticks are more likely to be positive for nitrites and leucocytes whether there is a UTI or not.

Aim

The 'SKIP THE DIP for UTI in over 65s' quality improvement initiative, led by the HSE Community Antimicrobial Pharmacists (AMPs), will raise awareness of best practice in the management of suspected UTI in HSE OPRCFs, to reduce inappropriate antibiotic prescribing.

Methods

A baseline point prevalence survey established antibiotic use trends and dipstick urinalysis practice in all 119 HSE OPRCFs in 2020/21. Subsequently, in September 2021, a national position statement on the use of dipstick urinalysis for UTI, and a decision aid to support management of suspected UTI in older persons in RCFs was published by AMRIC and promoted to RCF staff by the AMPs.

In March 2023, all HSE OPRCFs were administered a survey to determine dipstick urinalysis practice. Focus groups with nursing staff were held to identify facilitators and barriers to ceasing use of dipstick urinalysis for assessment of UTI. Following evaluation of the focus groups, resources to support the initiative were prepared by the AMPs. Face-to-face workshops delivered by the AMPs and distribution of the campaign material commenced in August 2023. Education was provided to GPs by AMPs and GP colleagues in AMRIC and the ICGP. A national webinar was presented in October 2023. Monthly monitoring of antibiotic use for UTI was established in all HSE OPRCFs.

To assess the impact of the quality improvement initiative, a survey of dipstick urinalysis practice was repeated in March 2024 and the trends in antibiotic use for UTI were assessed over the course of the quality improvement initiative.

Results

Baseline data from antimicrobial surveys in HSE OPRCFs in 2020/21 indicated 2.6% (114/4,446) of residents were on antibiotics for treatment of UTI. Monthly monitoring of antibiotic use in these RCFs showed a reduction in prevalence of antibiotics for treatment of UTI to 1.5% (66/4,321) in January and February 2024 (Figure 1).

A baseline survey in 2020/21 indicated that 98% of HSE OPRCFs performed dipstick urinalysis for residents with symptoms of UTI. In March 2023, a repeat survey showed 53% (57/107) of these RCFs performed dipstick urinalysis for UTI. After the introduction of the SKIP THE DIP initiative, this reduced further to 24% (25/103) of the RCFs reporting performing dipstick urinalysis for UTI in March 2024 (Figure 2).

Focus groups with nurses identified facilitators for change as outlined below. Barriers to change included current documentation requirements, residents' and families' concerns and doctors requesting dipstick urinalysis.

Themes arising from focus groups

Barriers to Change

- Nursing documentation
- Concerns of families / residents
- Ingrained practice
- Doctors requesting dipstick urinalysis

Facilitators to Change

- Education
- Consistent and strong messaging
- Local champions
- Leaflets

- Antimicrobial pharmacists
- IPC Link Practitioners
- Managers
- Monthly reporting of antibiotic use

Resources developed to support the initiative available on www.antibioticprescribing.ie

- * RCF staff handbook on SKIP THE DIP initiative
- Older persons information leaflet on UTI
- * SKIP THE DIP poster for older persons RCFs
- National position statement on dipstick urinalysis for assessment of UTI
- SKIP THE DIP educational webinar



Decision Aid for Management of Suspected UTI in Older Persons in RCFs

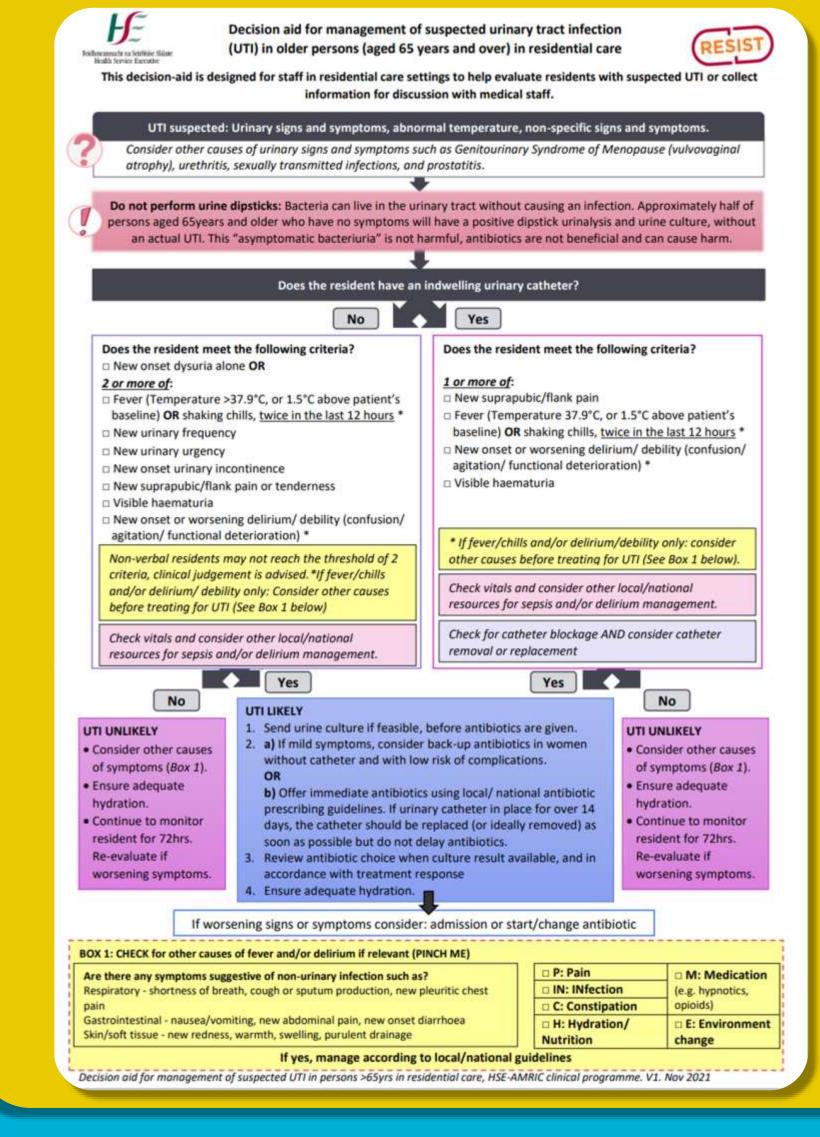


Figure 1: Percentage of Residents on Antibiotics for Treatment of UTI in HSE OPRCFs

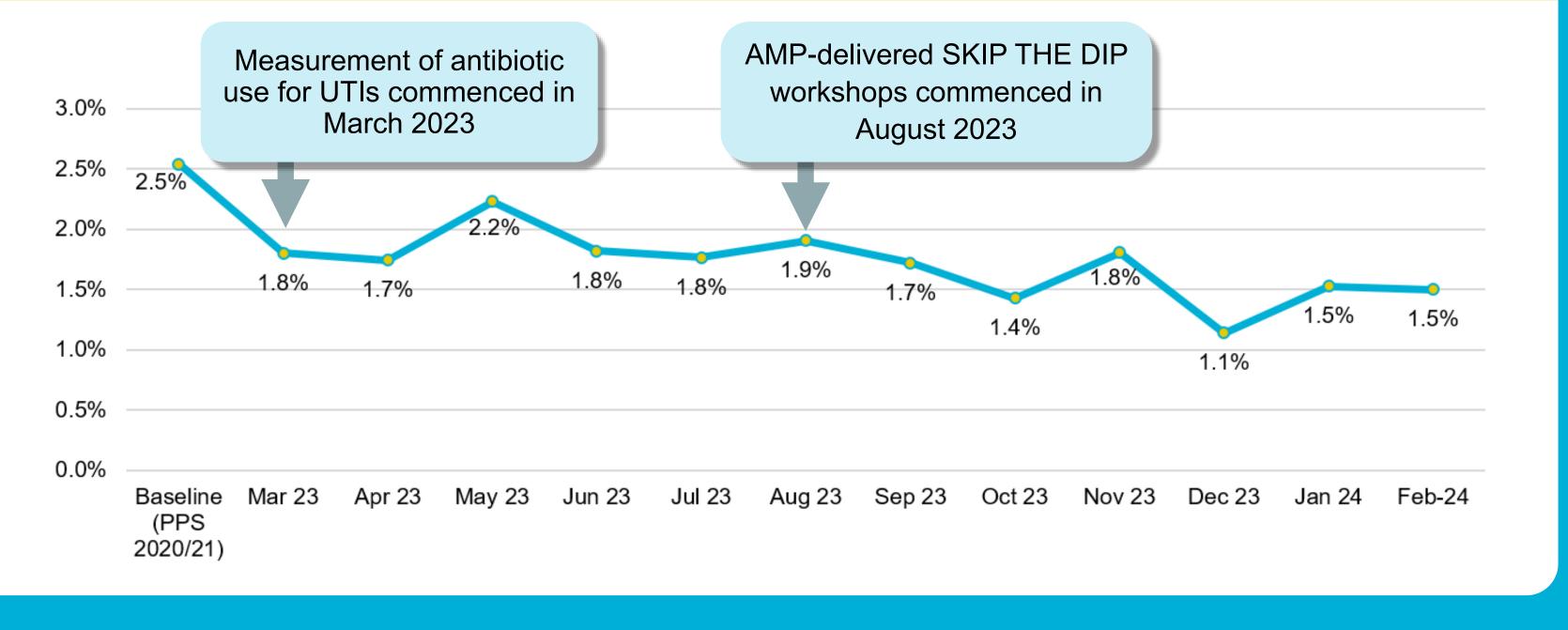
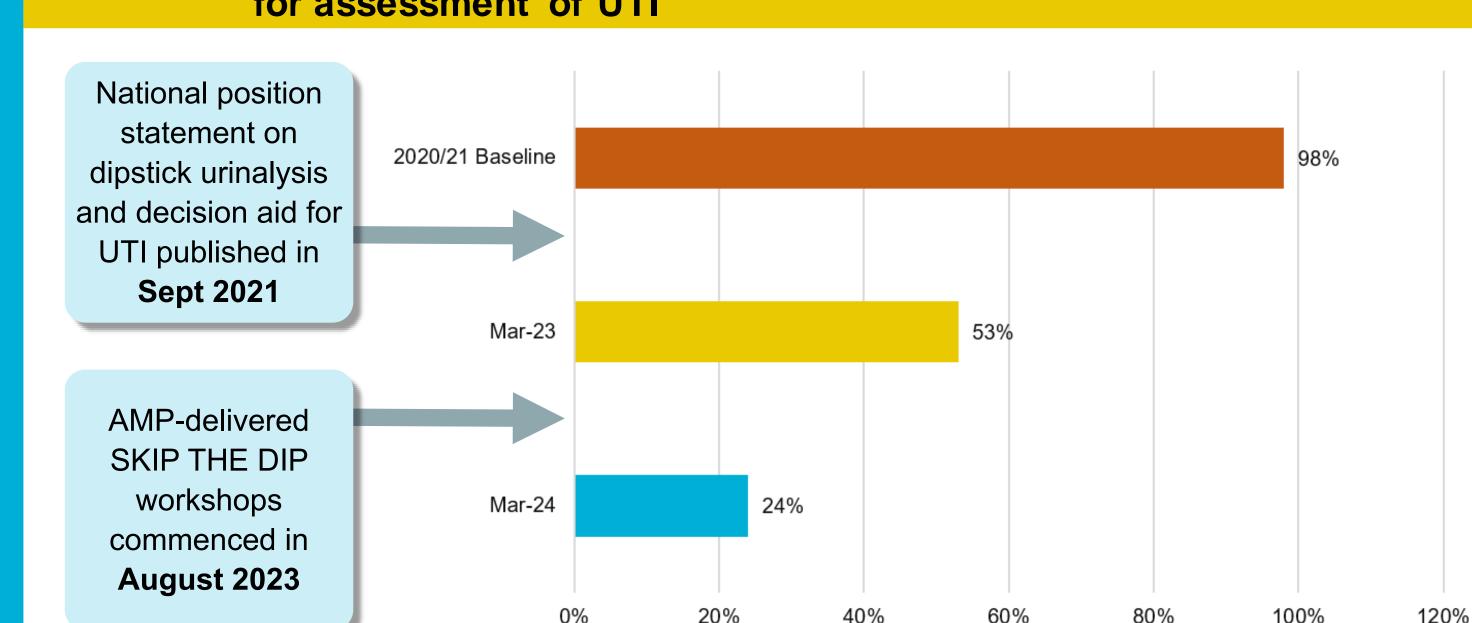


Figure 2: Proportion of HSE OPRCFs reporting using dipstick urinalysis for assessment of UTI



Conclusion

The SKIP THE DIP for UTI in over 65s quality improvement initiative supports best practice in management of UTI in older persons. It has resulted in a positive change with many HSE OPRCFs across the country ceasing use of dipstick urinalysis for assessment of UTI, with a reduction in antibiotic prescribing for the treatment of UTI. Wider implementation for this quality improvement initiative should be considered as this represents an opportunity for antimicrobial stewardship in other settings.

For more information contact

mala.shah@hse.ie